



Rehabilitation of Economic Facilities & Services Program (REFS)

Sector:	Infrastructure
SO-3:	Rehabilitate Afghanistan as a Nation State
Program Name:	REFS
Implementer:	LBG
Duration:	Sep 2002 – Dec 2005

Primary Roads

- Completion of these roads will serve to provide jobs and bring new business opportunities to the areas and provide better access to health care and other government services and improvement in security and communications. Reductions will be made in vehicle maintenance, emissions, and fuel consumption. Growth will be seen in both the local economy and international trade.

Kabul – Kandahar

- 6 contracts awarded, totaling approximately \$211,382,340.
- 99.5% complete, with 389 km of roadway paved, 7 totally reconstructed bridges, 39 bridges repaired.
- A field inspection group, consisting entirely of Afghans, was created to act as USAID's "eyes in the field." Their contribution led to significantly improved onsite work quality and better overall communications between USAID, LBG, and the subcontractors.
- Certain materials and equipment, including a pavement marking machine, were bought in order to be used for the road projects and then turned over to the MPW for future projects.
- Travel time reduced from 15 hrs. to approximately 6 hrs.
- Winter weather has delayed punch lists and warranty item investigation and repair. There has been asphalt cracking problems reported between Ghazni and Shah Jui. An investigation is currently underway.

Kandahar – Herat

- Currently four contracts have been awarded for \$140,296,586 for road work from Delaram to Herat. This work includes 326 km of road paving and 21 bridges in need of repair or reconstruction.
- USAID will team with the Kingdom of Saudi Arabia for the funding of the road from Grishk to Delaram. USAID is funding the A/E services, demining, and security. This work has not been contracted to date, but is approximated to cost \$52M. It will include paving 115 km of roadway, the rehabilitation of five bridges, and the complete reconstruction of 1 bridge.
- To increase accuracy of quantity estimations, and to reduce the amount of survey work necessary throughout the project, LIDAR, a laser based



method of measurement, was used in the reconnaissance phase of work. This method uses GPS technology to gather topographic information and to perform a condition assessment of the road, including drainage structures.

- An advanced road construction method, known as “rubbilization” is being utilized throughout the project to greatly reduce the overall project cost. This method crushes the existing concrete roadway and allows contractors to use the material as a crushed base aggregate. An American contractor is performing the rubbilization work.
- Demining is ongoing within the project footprint, including known project areas in the Saudi Arabia Section. Over half of the project demining has been completed.
- Japan, through JICA, is funding the first 115km of the Kandahar to Herat Road beginning just west of Kandahar. The completion date for this section is August 2006.



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AFGHANISTAN

UNOPS

Sector:	Infrastructure
SO-3:	Rehabilitate Afghanistan as a Nation State
Program Name:	Secondary Roads
Implementer:	UNOPS
Duration:	Feb 2004 – Feb 2005
LOP Budget:	\$217,769,875
Obligated	\$510,357,910
Disbursed:	\$93,439,000

Provincial Roads

- Six projects are on-going and three new are to start in the March to April 2005 timeframe.
- Kabul to Gardez Road connects the Logar and Paktia provinces to the capital and will greatly increase commerce and industry between the regions via a two-lane, 125 km asphalt highway that should be complete in the fall of 2005. No significant work is on-going due to severe winter conditions. This road connects the US PRT in Gardez to Kabul with an improved road.
- The road connecting Pul-e-Alam to the Ring Road, at 30 km, will connect the areas of Logar and other eastern provinces to the Primary Roads of Afghanistan when it is completed in the summer of 2005. No significant work is on-going due to severe winter conditions.
- The construction of the Kandahar to Tirin Kot Road is scheduled to be completed late in 2006 and connects the Uruzgan province to the urban center of Kandahar via a 148 km roadway. This is a unique project with the US Army and USAID working as partners on 128 km of the road project. This road will provide a greatly improve roadway with the US PRT located in Tirin Kot. This area is considered a high threat area.
- The Jalalabad to Asmar Road will connect the Konarha and northeastern provinces to Jalalabad, and thus Pakistan to Kabul. This 122 km stretch will be completed near the end of 2005. This road connects two US PRTs. Hostile actions are common along this road section.
- As the first of two phases, the Charikar to Gulbilar Road begins the highway that will connect the Panjshir Valley to Kabul by focusing on the 20 km stretch that is near the southern end of the Panjshir Road. The first phase is scheduled to be done by the end of 2005. Phase I is being performed as a capacity building exercise between USAID and MPW and their para-statal company Quikar.
- The 55 km road between Sherberghan and Sari-pul is scheduled to be completed by December of 2005 and connects two urban centers in the north of the country. This one of OIEE's most northern road projects.
- In the near future, three more provincial roads will be started. The next to be started will be connecting the provincial cities of Lashkar Gah to the ring

road. The next project to be started will be the Ghazni to Sharan Road which will connect two US PRTs with an improved road. Farah to Ring Road project is anticipated to get started in April 2005.

- Future year plans include numerous other secondary highways to connect provincial urban centers to other cities and to the Primary Roads network.

District Center Roads

- Using a contract through UNOPS, USAID is funding approximately 50 short distance roads (0.5 Km to 3 Km) through district centers. The total value of these roads is estimated to be \$9.4M. These roads are scattered across Afghanistan, with many of the sites being selected by the American USAID PRT staff. These roads are either double bituminous surface treatment (2 layers of chip seals) or cobblestone surfaces. These roads significantly improve the quality of life and sanitation of all those living or working along these busy district center roads. There are 30 roads under contract.

Capacity Building

- USAID is working with UNOPS, Ministry of Public Works, and other donors to continue to expand efforts in capacity building for both the public and private sector. Where feasible USAID is including small Afghan contractors in the construction of roads. Louis Berger Group is also incorporating local nationals through out their A/E services on the road projects. In general, the local nationals make up 50 to 70 percent of all project staff. The positions that local nationals fill are not limited to only laborer positions, but include management, logistics, engineering and accounting positions. USAID continues to explore new and expanded opportunities to conduct well planned capacity building exercises and training.

Schools and Clinics

- The LBG contract calls for the construction of 33 new schools and 72 new clinics. The initial delivery date was for October 31, 2004. As of 1 February, 2005, LBGI has sent "Letters of Completion" for 17 schools and 22 clinics. Of those 105 schools and clinics, the Ministry of Education and Ministry of Health have accepted 7 schools and 16 clinics, with the stipulation that a detailed evaluation of the roof trusses be conducted by LBGI and, subsequently, the USAID/MOE/MOH engineers. During the life of project, LBGI supervision and monitoring of the field sites has in general been unsatisfactory, with LBGI claiming that poor security conditions were impeding and preventing adequate site assessment and delays in building. In December 2004, USAID assumed the responsibility for field monitoring and supervision of LBGI sites, with a subsequent decrease in the LBGI budget for monitoring/supervision.



- USAID and the MOE/MOH have requested LBGI to review the design specifications for 103 facilities, to determine the safety and design integrity of the trusses supporting the roofs. If there are design faults in the roof trusses, LBGI will be required to strengthen or replace 103 of the 105 school and clinic facilities, which have possibly incorporated such faulty design. Should LBGI be required to replace.

Power and Energy

- The Kajakai Powerhouse Units 1 & 3 contract is currently underway, and will be completed by March 06. Unit 1 has been removed and the runner will be replaced and the wicket gates repaired. A previously uninstalled Unit 2 has just been awarded to the Chinese company CMIC and will be installed and operating prior to January 2007. With all 3 units running the plant will be rated for approximately 51 MW of power.
- The Terms of Reference for the Environmental and Sociological Impact Study for the Kajakai Gates installation and completion of construction of the service spillway have been completed and will likely commence study within 30 days. With the gates operational the Kajakai hydro plant will have sufficient additional head to reach approximately 67 MW of power.
- The water balance of the Helmand Water System has been contracted with the US Army Corps of Engineers and feasibility will begin study for the design and installation of a second 100 MW hydropower plant at Kajakai. The feasibility of this plant will start this year.
- The feasibility study for a gas thermal power plant for the Sheberghan area is underway with completion expected by the end of May 2005. The design and construction contract for this project is expected to be awarded by the end of August 2005. This plant will provide approximately 100-150 MW of power to the northern transmission line, which will tie to the transmission lines currently being bid by the Afghan Government, funded by the ADB.
- Pre-design has been finalized for the first two of many regional transmission and distribution systems for existing generator plants throughout Afghanistan. The first two cities to be awarded this work will be Aibak and Qalat. The work is expected to commence within 30 days. There will be another 16 locations of similar transmission/distribution work to follow.
- The Darunta hydro plant has been brought to 10.5 MW of a potential 11.4 MW over the last 6 months. Mechanical and Electrical repairs continue. Darunuta continues under study by our consultants and will be further studied for upgrade over the next 60 days.
- Pre-feasibility and feasibility will commence soon on the Kajakai to Kandahar and Lashkar Gah transmission line replacement.
- A feasibility study will be issued to study the final design parameters and construction requirements for the Kabul to PoliKumri transmission lines, including the possible future capacities for export power to neighboring countries.



- Plans this year to further improve capacity building with a new training center for the national power company, DABM.
- Metering and Revenue Collection remain a priority for both Kabul and the regional power centers throughout the country. Metering is currently under study for measuring import power, which will be used for fortifying the new power purchase agreements (PPA) between neighboring countries.

Fuel Assistance

Accomplishments

- Total of \$36M in Emergency Fuel supplies has been purchased to date.
- Fuel supplies provide for operations of GOA NW Kabul Peaking power facility (2x22.5 MW gas turbines), Kandahar emergency diesel station (12 MW) and Lashkar Gar Emergency Diesel supply (1.9 MW). These are primary sources of power supply for Kabul and Kandahar during winter low hydro periods.
- Fuel receiving/quality control/and testing facility established and training provided for NW Kabul-Afghan operating personnel. Fuel quality has been major problem area.
- Additional supplier (Land Bridge) identified and contract let January 20, 2005 for additional 8 million liters (\$3.8 million) of Kabul based supply for NW Kabul to avoid supply disruption due to harsh weather road conditions. (Current prime supplier DESCON supplies from Pakistan disrupted due to weather.)

Ongoing Plan

- Fuel quality issues being systematically addressed to resolve fuel waxing problem due to weather-standardization of quality mix additives being developed.
- Additional equipment for fuel cleaning and heating identified and is being supplied by DESCON for location at NW Kabul plant –expense being absorbed by DESCON within contracted costs of fuel.
- Fuel quality control and assurance being addressed in detail with suppliers throughout each step of the supply chain.

Near Future

- Enhanced quality control procedures to be finalized for implementation through suppliers.
- Additional fuel testing requirements, training program identified and four local staff selected to proceed for enhanced training.
- Additional fuel testing equipment requirements identified – following training program equipment (valued at \$22,000) will be purchased and placed at NW Kabul and Kandahar.
- Work has begun on the rehabilitation of the Kajakai Dam and Power station, which, when complete, will supply Kandahar and Lashkar Gah with 50 MW



of power. The power station contains two turbines which are currently being rehabilitated. Both turbines should be functioning by May 2006. A third turbine is being purchased for the station. It is anticipated that work will be completed on the third turbine by December 2006.